

IN THE SPECIFICATION

Page 6, lines 13-14, please delete this paragraph and substitute the following:

FIG. 46 illustrates cellular decomposition for a swept tool body (represented as a rectangle) ~~[[an]]~~ and a pair of surfaces (represented as two curves) to be used as terminations;

Page 14, lines 28-31, to page 15, lines 1-2, please delete this paragraph and substitute the following:

There may be times when operations other than the three above are needed. When this ~~[[is]]~~ occurs, an algorithm may choose to do a “selective” or “partial” Boolean, in which the algorithm explicitly selects which vertices (and therefore which cells) are kept. For example, perhaps it is desired to keep all the cells except the right most one. Removing one vertex from the ct-graph can do this. FIGS. 25A and 25B illustrate a selective Boolean operation that removes only one cell.

Page 16, lines 14-18, please delete this paragraph and substitute the following:

Assuming the tool body length is chosen, such ~~[[the]]~~ tool body completely passes through the blank body, using the ct-graph makes selection of the result trivial. In the one-directional case, the algorithm need only keep those cells associated with vertices not attached to the end termination vertex. In the two-direction case, the algorithm need only keep the cells associated with those vertices not attached to either termination vertex.

Page 26, lines 17-22, please delete this paragraph and substitute the following:

A difficulty arises with multi-body terminations when attempting to use the technique described in the section on the single-body method. The problem is that viable solutions are missed due to the fact that the condition that ~~[[a]]~~ an acceptable termination be a bridge edge in the tool body graph breaks down, as shown in FIGS. 46, 47, 48, and 49. One sees that the cause of this problem is the potential interference of the from-body and to-body, which may intersect to form a non-manifold blank body.

Page 29, lines 16-20, please delete this paragraph and substitute the following:

If multiple profiles (such as disjoint discs) are to sweep simultaneously, a tool body can be generated with multiple lumps. In this case, the tool graph has multiple components. These components can be handled separately. The complete terminated tool body is simply the union of the partial results. Other methods of handling tool-bodies with multiple components can be implemented without deviating from the scope of this invention.